Please type a plus sign (+) inside this box → ☐ +

PTO/SB/08A (08-00)
Approved for use through 10/31/2002. OMB 0651-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet	1	of	2

Complete if Known	
Application Number	10/772,822
Filing Date	February 5, 2004
First Named Inventor	Vijayan Rajan et al.
Group Art Unit	~~NOT YET ASSIGNED~~ 2185
Examiner Name	~~NOT YET ASSIGNED~~ Arpan Savla
Attorney Docket Number	112056-0159

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No.[1]	U.S. Patent Document Number	Kind Code[2] (if known)	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
A.S.		10/412,478		VIJAYAN RAJAN		U.S. Patent Application filed 04-11-2003 entitled WRITABLE READ-ONLY SNAPSHOTS
		US2002/0083037		LEWIS et al.	06-27-2002	
		5,819,292		HITZ et al.	10-06-1998	
		5,963,962		HITZ et al.	10-05-1999	
A.S.		6,038,570		HITZ et al.	03-14-2000	

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No.[1]	Foreign Patent Document Office[3]	Number[4]	Kind Code[5] (if known)	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T[6]

Examiner Signature		Date Considered	9/28/06

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

[1] Unique citation designation number. [2] See attached Kinds of U.S. Patent Documents. [3] Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). [4] For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. [5] Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. [6] Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Please type a plus sign (+) inside this box → $\boxed{+}$

Substitute for form 1449A/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

					Complete if Known	
				Application Number	10/772,822	
				Filing Date	February 5, 2004	
				First Named Inventor	Vijayan Rajan et al.	
				Group Art Unit	~~NOT YET ASSIGNED~~ 2185	
				Examiner Name	~~NOT YET ASSIGNED~~ Aljon Sajla	
Sheet	2	of	2	Attorney Docket Number	112056-0159	

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS				
Examiner Initials *	Cite No.[1]	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.		T[2]
		DAVID HITZ et al. ~~TR3002 File System~~ Design for a NFS File Server Appliance published by Network Appliance, Inc.		
A.S.		Common Internet File System (CIFS) Version: CIFS-Spec 0.9, Storage Networking Industry Association (SNIA), Draft SNIA CIFS Documentation Work Group Work-in-Progress, Revision Date: 3/26/2001		
A.S.		Fielding et al. (1999) Request for Comments (RFC) 2616, HTTP/1.1		

Examiner Signature		Date Considered	9/28/06

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

[1] Unique citation designation number. [2] Applicant is to place a check mark here if English language Translation is attached.

Please type a plus sign (+) inside this box → [+]

PTO/SB/08A (08-00)
Approved for use through 10/31/2002. OMB 0651-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.
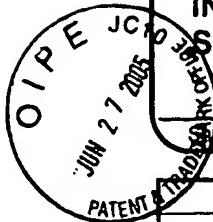
Substitute for form 1449A/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Complete if Known			
Application Number	10/772,822		
Filing Date	February 5, 2004		
First Named Inventor	Vijayan Rajan et al.		
Group Art Unit	~~NOT YET ASSIGNED~~ 2185		
Examiner Name	~~NOT YET ASSIGNED~~ Arpan Savla		
Attorney Docket Number	112056-0159		

Sheet | 1 | of | 5

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No.[1]	U.S. Patent Document Number	Kind Code[2] (if known)	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
A.S.	1	Re. 34,100		Hartness	10-13-1992	
	2	4,156,907		Rawlings, et al.	05-29-1979	
	3	4,399,503		Hawley	08-16-1983	
	4	4,598,357		Swenson et al.	07-01-1986	
	5	4,688,221		Nakamura et al.	08-18-1987	
	6	4,698,808		Ishii	10-06-1987	
	7	4,761,785	B1	Clark et al.	08-02-1988	
	8	4,805,090		Coogan	02-14-1989	
	9	4,837,675		Bean et al.	06-06-1989	
	10	4,864,497		Lowry et al.	09-05-1989	
	11	4,896,259		Jacobs et al.	01-23-1990	
	12	4,899,342		Potter et al.	02-06-1990	
	13	4,989,206		Dunphy, Jr. et al.	01-29-1991	
	14	5,124,987		Milligan et al.	06-23-1992	
	15	5,155,835		Belsan	10-13-1992	
	16	5,426,747		Weinreb et al.	06-20-1995	
	17	5,581,724		Belsan et al.	12-03-1996	
A.S.	18	6,636,879	B1	Doucette et al.	10-21-2003	

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No.[1]	Foreign Patent Document Office[3]	Number[4]	Kind Code[5] (if known)	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T[6]
A.S.	19	WO	89/10594		Krakauer, Arno	11-02-1989		

Examiner Signature	*(signature)*	Date Considered	9/28/06

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

[1] Unique citation designation number. [2] Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Please type a plus sign (+) inside this box → + PTO/SB/08A (08-00)

Approved for use through 10/31/2002. OMB 0651-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Complete if Known	
Application Number	10/772,822
Filing Date	February 5, 2004
First Named Inventor	Vijayan Rajan et al.
Group Art Unit	NOT YET ASSIGNED 2165
Examiner Name	NOT YET ASSIGNED Arpan Savla
Sheet	2	of	5	Attorney Docket Number	112056-0159

OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS

Examiner Initials *	Cite No.[1]	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T[2]
A.S.	20	Administration Guide found at http://www.openafs.org/pages/doc/AdminGuide/auagd010.htm, visited on 3/2/2005	
	21	BASILICO, ET AL., *Error Correction System Using "Shadow Memory,"* IBM Technical Disclosure Bulletin, May 1984, pp. 5792-5793	
	22	BITTON, DINA, *Disk Shadowing,* Proceedings of the 14th VLDB Conference, LA, CA (1988)	
	23	BLASGEN, M.W. ET AL., *System R:An architectural Overview,* Reprinted from IBM Systems Journal Vol. 20, no. 1, 1981©1981, 1999	
	24	BORENSTEIN, NATHANIEL S., *CMU's Andrew project a retrospective,* Communications of ACM, (39)12, December 1996	
	25	BROWN, MARK R. ET AL., *The Alpine file system,* ACM Transactions on Computing Systems, 3(4):261-293, November 1985	
	26	CHEN, PETER M., ET AL., *An Evaluation of Redundant Arrays of Disks Using an Amdahl 5890 Performance Evaluation,* pp. 74-85, 1990	
	27	CHUTANI, SAILESH, ET AL., *The Episode file system,* In Proceedings of the USENIX Winter 1992	
	28	CLARK, B.E., ET AL., *Application System /400 Performance Characteristics,* IBM Systems Journal, 28(3): 407-423, 1989	
✓	29	Data Sheet for the Check Point Software Technologies product Flood-Gate-1 (1997)	
A.S.	30	DIBBLE, PETER C., ET AL., Beyond Striping: The Bridge Multiprocessor File System, Computer Science Department, University of Rochester, Aug. 11, 1989	
	31	DOUGLIS, FRED, ET AL., *A comparison of two distributed systems: Amoeba and Sprite* - Computing Systems, 4(4), Fall 1991, pp. 353-385 ?{copy of article I have has no date or cite}	
A.S.	32	GAIT, JASON, *Phoenix: A Safe In-Memory File System.* Communications of the ACM, 33(1):81-86, January 1990	
✓	33	HARTMAN, JOHN H. ET AL., *Performance Measurements of a Multiprocessor Sprite Kernel,* Proceedings of the USENIX Conference, 1990	
A.S.	34	HITZ, DAVE ET AL., *File System Design for an NFS File Server Appliance,* Technical Report 3002, Rev. C395, presented Jan. 19, 1994	

Examiner Signature		Date Considered	4/28/06

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

[1] Unique citation designation number. [2] Applicant is to place a check mark here if English language Translation is attached.

PTO/SB/08A (08-00)
Approved for use through 10/31/2002. OMB 0851-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Complete if Known	
Application Number	10/772,822
Filing Date	February 5, 2004
First Named Inventor	Vijayan Rajan et al.
Group Art Unit	~~NOT YET ASSIGNED~~ 2185
Examiner Name	~~NOT YET ASSIGNED~~ Argen Skulg

Sheet	3	of	5	Attorney Docket Number	112056-0159

OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS

Examiner Initials *	Cite No.[1]	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T[2]
AS	35	HOWARD, JOHN H, ET AL. *Scale and Performance in a Distributed File System*, Carnegie Mellon University, CMU-ITC-87-068, Aug. 5, 1987	
JV	36	HOWARD, JOHN, H. ET AL., *Scale and performance in a distributed file system*, ACM Trans. Computer. System., 6(1), Feb. 1988 pp. 51-81	
AS	37	HOWARD, JOHN H., *An Overview of the Andrew File System*, Carnegie Mellon University, CMU-ITC-88-062	
	38	~~The IBM System/38, Chapter 8, pp. 137-15~~	
AS	39	ISOMAKI, MARKUS, *Differentiated Service for the Internet*, Department of Technical Physics and Mathematics, May 9, 1998	
AS	40	KAZAR, MICHAEL L., ET AL., *Decorum File System Architectural Overview*, USENIX Summer Conference, Anaheim, California, 1990	
	41	~~LOMET, DAVID., ET AL., *The performance of a multiversion access method*, ACM SIGMOD International Conference on Management of Data, 19:353-363~~	
AS	42	LORIE, RAYMOND, A, *Physical integrity in a large segmented database*, ACM Trans. Database Systems, (2)1: 91-104, March 1977	
	43	LORIE, RA, *Shadow Page Mechanism*, IBM Technical Disclosure Bulletin, June 1986, pp. 340-342	
	44	MCKUSICK, MARSHALL KIRK, ET AL., *A Fast File System for UNIX*, Computer Science Division, Department of Electrical Engineering and Computer Sciences, Univ. of CA, Berkley, Feb. 18, 1994	
	45	MILLER, ETHAN L., ET AL., *RAMA:A File System for Massively Parallel Computers*, 12th IEEE Symposium on Mass Storage Systems, Monterey CA, April 1993, pp. 163-168	
	46	MOONS, HERMAN ET AL., *Location-Independent Object Invocation in Open Distributed Systems*, Autumn 1991 EurOpen Technical Conference and Exhibition, pp. 287-300 (September 16-20, 1991)	
	47	MORRIS, JAMES H., Et AJ, *Andrew: A Distributed Personal Computing Environment*, Comm. of the ACM, vol. 29, March 1986, pp 184-201	
JV	48	MULLENDER, SAPE J., ET AL., *A distributed file service based on optimistic concurrency control*, ACM Symposium on Operating System Principles (Orcas Island, Washington). Published as Operating Systems Review, 19(5):51-62, December 1985	
AS	49	MULLER, KEITH, ET AL., *A High Performance Multi-Structured File System Design*, In Proceedings of the 13th ACM Symposium on Operating Systems Principles, October 1991, pp. 56—67	

Examiner Signature	[signature]	Date Considered	9/28/06

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

[1] Unique citation designation number. [2] Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Please type a plus sign (+) inside this box → [+]

Substitute for form 1449A/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Complete if Known	
Application Number	10/772,822
Filing Date	February 5, 2004
First Named Inventor	Vijayan Rajan et al.
Group Art Unit	~~NOT YET ASSIGNED~~ 2185
Examiner Name	~~NOT YET ASSIGNED~~ Afor Srvl

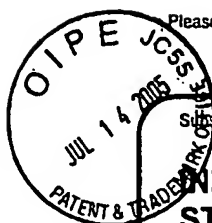| Sheet	4	of	5	Attorney Docket Number	112056-0159

OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS

Examiner Initials *	Cite No.[1]	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T[2]
A.S.	46	MOONS, HERMAN ET AL., *Location-Independent Object Invocation in Open Distributed Systems*, Autumn 1991 EurOpen Technical Conference and Exhibition, pp. 287-300 (September 16-20, 1991)	
	47	MORRIS, JAMES H., Et Al, *Andrew: A Distributed Personal Computing Environment*, Comm. of the ACM, vol. 29, March 1986, pp 184-201	
	48	MULLENDER, SAPE J., ET AL., *A distributed file service based on optimistic concurrency control*, ACM Symposium on Operating System Principles (Orcas Island, Washington). Published as Operating Systems Review, 19(5):51–62, December 1985	
	49	MULLER, KEITH, ET AL., *A High Performance Multi-Structured File System Design*, In Proceedings of the 13th ACM Symposium on Operating Systems Principles, October 1991, pp. 56—67	
	50	OUSTERHOUT, JOHN K. ET AL., *The Sprite Network Operating System*, Computer Science Division, Department of Electrical Engineering and Computer Sciences, Univ. of CA, Berkley, Nov. 19, 1987	
	51	OUSTERHOUT, JOHN ET AL., *Beating the I/O Bottleneck: A Case for Log-Structured File Systems*, Technical Report, Computer Science Division, Electrical Engineering and Computer Sciences, University of California at Berkeley, October 30, 1988	
	52	OUSTERHOUT, JOHN, *Why Aren't Operating Systems Getting Faster as Fast as Hardware?*, Digital WRL Technical Note TN-11, October 1989	
	53	OUSTERHOUT, JOHN, *A Brief Retrospective On The Sprite Network Operating System*, found at http://www.cs.berkeley.edu/projects/sprite/retrospective.html,visited on 3/11/2005	
	54	PATTERSON, D., ET AL., *A Case for Redundant Arrays of Inexpensive Disks (RAID)*, Technical Report, CSD-87-391, Computer Science Division, Electrical Engineering and Computer Sciences, University of California at Berkeley (1987)	
	55	PATTERSON, D., ET AL., *A Case for Redundant Arrays of Inexpensive Disks (RAID)*, SIGMOD International Conference on Management of Data, Chicago, IL, USA, 1-3 June 1988, SIGMOD RECORD (17)3:109-16 (Sept. 1988)	
	56	PETERSON, ZACHARY NATHANIEL JOSEPH, *Data Placement for Copy-on-Write Using Virtual Contiguity*, University of CA, Santa Cruz, Master of Science in Computer Science Thesis, September 2002	
	57	QUINLAN, SEAN, *A Cached WORM File System*, Software-Practice and Experience, 21(12):1289-1299 (1991)	
	58	Redundant Array of Independent Disks, from Wikipedia, the free encyclopedia, found at http://en.wikipedia.org/wiki/RAID, visited on 3/9/2005	
V	59	ROSENBERG, J., ET AL., *Stability in a Persistent Store Based on a Large Virtual Memory*, In Security and Persistence, Rosenber, J. & Keedy, J.L. (ed), Springer-Verlag (1990) pp 229-245	
A.S.	60	ROSENBLUM, MENDEL, ET AL., *The LFS Storage Manager*, Computer Science Division, Electrical Engin. And Computer Sciences, Univ. of CA, presented at Summer '90 USENIX Technical Conference, Anaheim, CA June 1990	

Examiner Signature		Date Considered	9/28/06

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

[1] Unique citation designation number. [2] Applicant is to place a check mark here if English language Translation is attached.

Substitute for form 1449A/PTO	Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT *(use as many sheets as necessary)*	Application Number	10/772,822
	Filing Date	February 5, 2004
	First Named Inventor	Vijayan Rajan et al.
	Group Art Unit	~~NOT YET ASSIGNED~~ 2185
	Examiner Name	~~NOT YET ASSIGNED~~ Avon Skvla

Sheet	5	of	5	Attorney Docket Number	112056-0159

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS

Examiner Initials *	Cite No.[1]	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T[2]
A.S.	61	ROSENBLUM, MENDEL, ET AL, *The Design and Implementation of a Log-Structured File System* July 24, 1991 pp1-15.	
	62	ROSENBLUM, MENDEL, ET AL., *The Design and Implementation of a Log-Structured File System*, , In Proceedings of ACM Transactions on Computer Systems, (10)1:26-52, February 1992	
	63	SANDBERG, RUSSEL ET AL., *Design and implementation of the Sun Network Filesystem.* In Proc. Summer 1985 USENIX Conf., pages 119–130, Portland OR (USA), June 1985	
	64	SANTRY, DOUGLAS S., ET AL., *Deciding When to Forget in the Elephant File System*, Operating Systems Review, 34(5), (Dec. 1999) pp.110-123	
	65	SATYANARAYANAN, M., ET AL., *The ITC Distributed File System: Principles and Design*, In Proceedings of the 10th ACM Symposium on Operating Systems Principles, (19)5:56-67, December 1985	
A.S.	66	SATYANARAYANAN,.M.. *A survey of distributed file-systems.* Annual Review of Computing Science, 4(73–104), 1989	
~~67~~	~~SATYANARAYANAN, M., ET AL, *Coda: A highly available file system for a distributed workstation environment* Carnegie Mellon University, CMU-ITC~~		
A.S.	68	SATYANARAYANAN, M., ET AL, *Coda: A highly available file system for a distributed workstation environment.* IEEE Transactions on Computers, 39(4):447-459, 1990	
	69	SATYANARAYANAN, MAHADEV, *Scalable, Secure, and Highly Available Distributed File Access*, Computer May 1990: 9-21	
	70	SIDEBOTHAM, BOB, *Volumes: The Andrew File System Data Structuring Primitive*, EEUG Conference Proceedings, Manchester, UK, Autumn 1986	
	71	User Guide found at http://www.openafs.org/pages/doc/UserGuide/auusg004.htm, visited on 3/2/2005	
	72	WELCH, BRENT B., ET AL., *Pseudo Devices: User-Level Extensions to the Sprite File System*, Computer Science Division, Department of Electrical Engineering and Computer Sciences, Univ. of CA, Berkley, April 1988	
	73	WELCH, BRENT B., ET AL., *Pseudo-File-Systems*, Computer Science Division, Department of Electrical Engineering and Computer Sciences, Univ. of CA, Berkley, Oct. 1989	
A.S.	74	WITTLE, MARK, ET AL, *LADDIS: The next generation in NFS file server benchmarking*, USENIX Association Conference Proceedings, April 1993.	

Examiner Signature		Date Considered	9/28/06

Please type a plus sign (+) inside this box → [+]

PTO/SB/08A (08-00)
Approved for use through 10/31/2002. OMB 0651-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Complete if Known	
Application Number	10/772,822
Filing Date	February 5, 2004
First Named Inventor	Vijayan Rajan et al.
Group Art Unit	NOT YET ASSIGNED 2185
Examiner Name	NOT YET ASSIGNED

Sheet	1	of	3	Attorney Docket Number	112056-0159

U.S. PATENT DOCUMENTS

Examiner Initials *	Cite No.[1]	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code[2] *(if known)*			
A.S.	1	4,570,217		Allen et al.	02-11-1986	
	2	5,163,131		Row et al.	11-10-1992	
✓	3	5,202,979		Hillis et al.	04-13-1993	
A.S.	4	5,278,979		Foster et al.	01-11-1994	

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS

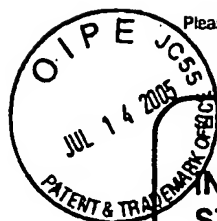| Examiner Initials *	Cite No.[1]	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.
A.S.	5	AKYUREK, SEDAT, *Placing Replicated Data to Reduce Seek Delays*, Department of Computer Science, University of Maryland, UMIACS-TR-91-121, CS-TR-2746, August 1991.
	6	BITTON, DINA, *Disk Shadowing*, Proceedings of the 14th VLDB Conference, LA, CA 1988.
	7	CHAUDHURI, SURAJIT, ET AL., *Self-Tuning Technology in Microsoft SQL Server*, Data Engineering Journal 22, 2 1999 pp. 20-27.
	8	CHUTANI, SAILESH, ET AL., *The Episode File System*, In Proceedings of the USENIX Winter 1992.
	9	COYNE, ROBERT A., ET AL., *Storage Systems for National Information Assets*, Proc. Supercomputing 92, Minneapolis, Nov. 1992, pp. 626-633.
	10	FINLAYSON, ROSS S., ET AL., *Log Files: An Extended File Service Exploiting Write-Once Storage* Department of Computer Science, Stanford University, Report No. STAN-CS-87-1177, September 1987.
	11	GRAY, JIM, ET AL., *The Recovery Manager of the System R Database Manager*, ACM Computing Surveys, (13)2:223-242 1981.
✓	12	HECHT, MATTHEW S., ET AL. *Shadowed Management of Free Disk Pages with a Linked List*, ACM Transactions on Database Systems, 8/4, December 1983, pp. 503-514.
A.S.	13	HOWARD, JOHN, H. ET AL., *Scale and Performance in a Distributed File System*, Carnegie Mellon University, CMU-ITC-87-068, August 1987.

Examiner Signature		Date Considered	1/28/06

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

[1] Unique citation designation number. [2] See attached Kinds of U.S. Patent Documents. [3] Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). [4] For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. [5] Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. [6] Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Substitute for form 1449A/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Complete If Known	
Application Number	10/772,822
Filing Date	February 5, 2004
First Named Inventor	Vijayan Rajan et al.
Group Art Unit	~~NOT YET ASSIGNED~~ 2185
Examiner Name	~~NOT YET ASSIGNED~~ Aqpen Savla

Sheet	2	of	3	Attorney Docket Number	112056-0159

OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No.[1]	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T[2]
AS	14	HOWARD, JOHN H., *An Overview of the Andrew File System*, Carnegie Mellon University, CMU-ITC-88-062 1988.	
AS	15	HOWARD, JOHN, H. ET AL., *Scale and Performance in a Distributed File System*, ACM Trans. Computer System, 6(1), Feb. 1988 pp. 51-81.	
	16	~~KAZAR, MICHAEL LEON, Synchronization and Caching Issues in the Andrew File System, Carnegie Mellon University, CMU-ITC-88-063.~~	
AS	17	KAZAR, MICHAEL L., ET AL., *DEcorum File System Architectural Overview*, USENIX Summer Conference, Anaheim, California, 1990.	
	18	KEMPER, ALFONS, ET AL., *Performance Tuning for SAP R/3*, Data Engineering Journal 22, 2 1999 pp. 33-40.	
	19	KENT, JACK ET AL., *Optimizing Shadow Recovery Algorithms, IEEE Transactions on Software Engineering, 14(2): 155-168 , February 1988.*	
	20	KISTLER, ET AL., *Disconnected Operation in the Coda File System*, ACM Transactions on Computer Systems, Vol. 10, No. 1, February 1992, pp 3-25.	
	21	LORIE, RAYMOND, A. *Physical Integrity in a Large Segmented Database*, ACM Trans. Database Syst., vol. 2, March 1977, pp. 91-104 .	
	22	OUSTERHOUT, JOHN ET AL., *Beating the I/O Bottleneck: A Case for Log-Structured File Systems*, Technical Report, Computer Science Division, Electrical Engineering and Computer Sciences, University of California at Berkeley, October 30, 1988.	
	23	PATTERSON, D., ET AL., *A Case for Redundant Arrays of Inexpensive Disks (RAID)*, Technical Report, CSD-87-391, Computer Science Division, Electrical Engineering and Computer Sciences, University of California at Berkeley 1987.	
	24	PATTERSON, D., ET AL., *A Case for Redundant Arrays of Inexpensive Disks (RAID)*, SIGMOD International Conference on Management of Data, Chicago, IL, USA, 1-3 June 1988, SIGMOD RECORD (17)3:109-16 Sept. 1988.	
AS	25	PETERSON, ZACHARY NATHANIEL JOSEPH, *Data Placement for Copy-on-Write Using Virtual Contiguity*, University of CA, Santa Cruz, Master's Thesis for the Department of Science in Computer Science, September 2002.	

Examiner Signature		Date Considered	9/28/06

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

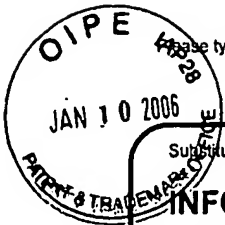| Substitute for form 1449A/PTO	Complete If Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT *(use as many sheets as necessary)*	Application Number	10/772,822
	Filing Date	February 5, 2004
	First Named Inventor	Vijayan Rajan et al.
	Group Art Unit	~~NOT YET ASSIGNED~~ 2185
	Examiner Name	~~NOT YET ASSIGNED~~ Arpan Savla
Sheet	3	of	3	Attorney Docket Number	112056-0159

OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS

Examiner Initials *	Cite No.[1]	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T[2]
A.S.	26	QUINLAN, SEAN, *A Cached WORM File System,* Software-Practice and Experience, 21(12):1289-1299 1991.	
	27	ROSENBLUM, MENDEL, ET AL., *The LFS Storage Manager,* Computer Science Division, Electrical Engineering And Computer Sciences, Univ. of CA, presented at Summer '90 USENIX Technical Conference, Anaheim, CA June 1990.	
	28	ROSENBLUM, MENDEL, ET AL. *The Design and Implementation of a Log-Structured File System* July 24, 1991 pp1-15.	
	29	ROSENBLUM, MENDEL, *The Design and Implementation of a Log-Structured File System,* 1992 pp. 1-93.	
	30	ROSENBLUM, MENDEL, ET AL., *The Design and Implementation of a Log-Structured File System,* In Proceedings of ACM Transactions on Computer Systems, (10)1:26-52, February 1992.	
	31	SCHIEFER, BERNI, *ET AL., DB2 Universal Database Performance Tuning,* Data Engineering Journal 22, 2 1999 pp. 12-19.	
	32	SELTZER, MARGO I., ET AL., *Journaling Versus Soft Updates: Asynchronous Meta-Data Protection in File Systems,* Proceedings of 200 USENIX Annual Technical Conference, 6/18-23/2000.	
	33	SHASHA, DENNIS, *Tuning Time Series Queries in Finance: Case Studies and Recommendations,* Data Engineering Journal 22, 2 1999 pp 41-47.	
	34	SIDEBOTHAM, BOB, *Volumes: The Andrew File System Data Structuring Primitive,* EEUG Conference Proceedings, Manchester, UK, Autumn 1986.	
	35	SUBRAMANIAN, MURALIDHAR, ET AL., *Performance Challenges in Object-Relational DBMSs,* Data Engineering Journal 22, 2 1999 pp 28-32.	
	36	WEIKUM, GERHARD, *ET AL., Towards Self-Tuning Memory Management for Data Servers,* Data Engineering Journal 22, 2 1999 pp 3-11.	
	37	WEST, MICHAEL, ET AL. *The ITC Distributed File System: Prototype and Experience,* Carnegie-Mellon University, Technical Report CMU-ITC-040, March 1985.	
A.S.	38	ZAYAS, EDWARD R., AFS-3 Programmer's Reference: Architectural Overview, Transarc Corporation, Pittsburgh, PA, 1.0 edition 1991.	

Examiner Signature		Date Considered	4/28/06

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

[1] Unique citation designation number. [2] See attached Kinds of U.S. Patent Documents. [3] Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). [4] For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. [5] Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. [6] Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Please type a plus sign (+) inside this box → [+]

Substitute for form 1449A/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet	1	of	2

Complete if Known	
Application Number	10/772,822
Filing Date	February 5, 2004
First Named Inventor	Vijayan Rajan et al.
Group Art Unit	~~NOT YET ASSIGNED~~ 2185
Examiner Name	~~NOT YET ASSIGNED~~ Argen Skvla
Attorney Docket Number	112056-0159

OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS

Examiner Initials *	Cite No.[1]	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T[2]
A.S.	4	HUTCHINSON N.C. ET AL, "Logical vs. Physical File System Backup" Usenix Association Proceedings of the 3rd Symposium on Operating Systems Design and Implemention. OSDI '99. (Published in: Operating Systems Review, OSR Special Issue- Winter 1998.) New Orleans, LA, February 22-25, 1999, Symposium on Operating Systems, pages 239-249, XP002194026	
A.B.	5	International Search Report for International Application No. PCT/US2005/003217, December 13, 2005, Authorized Officer Selma Harris.	

Examiner Signature		Date Considered	9/28/06

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

[1] Unique citation designation number. [2] Applicant is to place a check mark here if English language Translation is attached.

PTO/SB/08A (08-00)
Approved for use through 10/31/2002. OMB 0651-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

OIPE
JAN 10 2006
PATENT & TRADEMARK OFFICE

Substitute for form 1449A/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet	1	of	2

Complete if Known

Application Number	10/772,822
Filing Date	February 5, 2004
First Named Inventor	Vijayan Rajan et al.
Group Art Unit	~~NOT YET ASSIGNED~~ 2185
Examiner Name	~~NOT YET ASSIGNED~~ AnAn Truk
Attorney Docket Number	112056-0159

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No.[1]	U.S. Patent Document Number	Kind Code[2] (if known)	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
A.S.	1	2003/0158863	A1	Haskin et al.	08-21-2003	
↓	2	6,665,815	B1	Goldstein et al.	12-16-2003	
A.S.	3	2002/0091670	A1	Hitz et al.	07-11-2002	

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No.[1]	Foreign Patent Document Office[3]	Number[4]	Kind Code[5] (if known)	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T[6]

Examiner Signature		Date Considered	2/28/06

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

[1] Unique citation designation number. [2] See attached Kinds of U.S. Patent Documents. [3] Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). [4] For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. [5] Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. [6] Applicant is to place a check mark here if English language Translation is attached.